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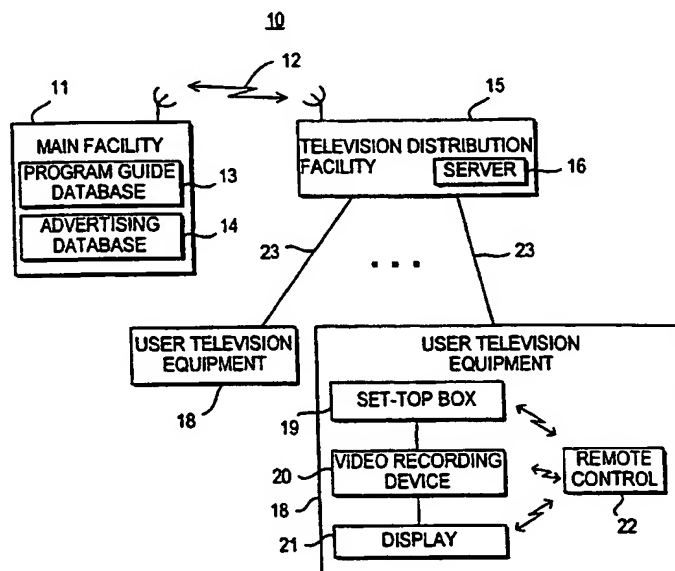
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(54) Title: **INTERACTIVE TELEVISION PROGRAM GUIDE WITH ADVERTISING ATTRACT MODE**



(57) Abstract: An interactive television program guide system having advertisement regions where a sequence of linked advertisements are displayed. The advertisements in each sequence of linked advertisements all advertise the same program, product, or service. A sequence of linked advertisements may consist of attraction mode advertisements and information mode advertisements that are concerned with enticing and informing, respectively. A displayed advertisement changes to the next advertisement in the sequence of linked advertisements based on the movement of a highlight region among the program listings by a user. A display advertisement may also change after a specified period of user inactivity.

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## INTERACTIVE TELEVISION PROGRAM GUIDE WITH ADVERTISING ATTRACT MODE

### Background of the Invention

This invention relates to interactive  
5 television program guides, and more particularly, to  
techniques for presenting advertisements in interactive  
television program guides that serve to catch the  
attention of users and provides them with information  
on a program, product or service.

10 Cable, satellite, and broadcast television  
systems provide users with a large number of television  
channels. Users have traditionally consulted printed  
television program schedules to determine the programs  
being broadcast at a particular time. More recently,  
15 interactive electronic television program guides have  
been developed that allow television program  
information to be displayed on a user's television.

Interactive television program guides are  
typically implemented on set-top boxes. Such program  
20 guides allow users to view television program listings  
in different display formats. For example, a user may  
instruct the program guide to display a grid of program  
listings organized in a channel-ordered or a time-  
ordered list. Users may also search and sort program

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listings by theme (e.g., movies, sports, etc.) or by title (i.e., alphabetically). A user may obtain additional information for a program by placing a highlight region on a desired program listing and pressing an "info" button. The user may purchase a pay program from the program guide by placing the highlight region on a program listing and pressing an "OK" button. Some systems allow the user to select a program for recording by placing the highlight region on a program listing and pressing a "record" button.

One of the benefits of interactive television program guides is that they provide a potentially lucrative venue for advertising. Advertisements and program listings may be displayed simultaneously. Program guides may display advertisements as static text, although such completely static advertisements may not necessarily catch the user's attention. Program guides may also display advertisements that change each time the user moves a highlight region from one program listing to another. However, it can be disconcerting if each advertisement is directed toward a different program, product, or service. Further, advertisements that change strictly based on a specified period of user inactivity may not be desirable to the user, because they are not under the user's control.

It is therefore an object of the present invention to provide improved ways in which to present advertising in interactive television program guides.

### 30 Summary of the Invention

This and other objects of the invention are accomplished in accordance with the principles of the present invention by providing an interactive

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television program guide system in which interactive advertisements are displayed in linked sequences. As the user moves a program listing highlight region from one program listing to the next, the interactive advertisement that is displayed may change.

Advertisements may also change as the user moves a highlight region among any selectable element in the display. This may include items in a tool bar, icons, buttons, advertisements, etc. The displayed advertisement may also be changed after a specified period of user inactivity. In order to avoid changing the subject matter of the advertisements too quickly, the advertisements may be linked. The program guide may display two or more advertisements in a sequence in which each advertisement is generally directed toward the same program, product, or service (e.g., television service) as the other advertisements in the linked sequence.

In order to be more effective in enticing the user and in informing the user, two modes of advertisements may be used. These are the attraction mode advertisement and the information mode advertisement. The attraction mode advertisement serves primarily to entice a user of the interactive television program guide system, whereas the information mode advertisement serves primarily to inform the user of details concerning the advertised program, product, or service.

The information mode advertisements and attraction mode advertisements may be placed in the sequence of linked advertisements using several possible arrangements. For example, the information mode advertisements and attraction mode advertisements may alternate with one another. Or the advertisements

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may be placed in the sequence in such a way that there are two attraction mode advertisements followed by one information mode advertisement. Any such pattern may be implemented. Random sequencing is also possible.

- 5           Any number of advertisement regions containing sequences of linked advertisements may be placed in an interactive television program guide display screen. Also, two or more advertisements may be linked in the sequence of linked advertisements.
- 10   Once the last advertisement in a sequence is reached, the sequence may then loop to the beginning.

- The advertisements in a linked sequence of advertisements may further be related in that all or most of the advertisements have at least one common
- 15   color or visual pattern. For example, in the case where there are two advertisements in the linked sequence of advertisements and one of them is an attraction mode advertisement and the other is an information mode advertisement, a dominant color used
- 20   in the attraction mode advertisement may be used as a background color in the information mode advertisement. Any such use of a color or visual pattern may be implemented to visually link all or some of the advertisements in a linked sequence of advertisements.

- 25           The advertisements displayed in the interactive television program guide may also be interactive. If a user selects an advertisement, a new display may appear containing more information about the advertised program, product, or service. In
- 30   addition, a number of options may be presented to the user upon selection of an advertisement. These may include a Record option, a Remind option, a Video Stream option, an Order option, as well as any other options that may be available depending on the content

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of the selected advertisement. For example, if the advertisement was for a pay-per-view movie, an option to order the movie or to display show times may be available. If a channel was being advertised, then  
5 there may be options to watch it, set it as a favorite channel, order it if it is purchasable, or any other appropriate option.

If it is desired to both entice and inform a user simultaneously, two advertisement regions may be  
10 used to simultaneously display an attraction mode advertisement and an information mode advertisement for the same program, product, or service.

The present invention may further be applied to the FLIP and BROWSE features of an interactive  
15 television program guide. Advertisement regions may be displayed in a FLIP or BROWSE region. The advertisements in such regions may be part of a linked sequence of advertisements. As the user flips through channels, the advertisement displayed in the  
20 advertisement region of a FLIP region may change depending on the channel currently flipped to. Alternatively, the advertisement displayed in the advertisement region of a FLIP region may progress through a sequence of linked advertisements advertising  
25 a particular program, product, or service not related to the channel currently flipped to each time the program listings data that is displayed in the FLIP region is changed. The BROWSE region may be implemented similarly, where the advertisements change  
30 to other non-related advertisements or to the next advertisement in a sequence of linked advertisements each time the displayed program listing data is changed. The advertisements may also be changed based on a specified period of user inactivity.

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The present invention is not limited to interactive television program guides. If desired, any interactive television application may incorporate the advertising arrangement as defined herein.

5 Further features of the invention, its nature, and various advantages will be more apparent from the accompanying drawings and the following detailed description of the preferred embodiments.

10 Brief Description of the Drawings

FIG. 1 is a block diagram of an illustrative program guide system in accordance with the present invention.

15 FIG. 2 is a block diagram of a system similar to the system of the system of FIG. 1 showing how servers may be located at network nodes in accordance with the present invention.

FIG. 3 is a flow chart of illustrative steps involved in alternating advertisement modes in  
20 accordance with the present invention.

FIG. 4A shows an illustrative program guide display screen in accordance with the present invention.

25 FIG. 4B shows an illustrative program guide display screen that may be presented when the user moves the highlighted region of FIG. 4A in accordance with the present invention.

FIG. 4C shows an illustrative program guide display screen that may be presented when the user  
30 moves the highlighted region of FIG. 4B in accordance with the present invention.

FIG. 5 shows an illustrative program guide display screen that may be used to provide information

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corresponding to a selected advertisement in accordance with the present invention.

FIG. 6A shows another illustrative program guide display screen in accordance with the present invention.

FIG. 6B shows an illustrative program guide display screen that may be presented when the user moves the highlighted region of FIG. 6A in accordance with the present invention.

FIG. 6C shows an illustrative program guide display screen that may be presented when the user moves the highlighted region of FIG. 6B in accordance with the present invention.

FIG. 7A shows another illustrative program guide display screen in accordance with the present invention.

FIG. 7B shows an illustrative program guide display screen that may be presented when the user moves the highlighted region of FIG. 7A in accordance with the present invention.

FIG. 7C shows an illustrative program guide display screen that may be presented when the user moves the highlighted region of FIG. 7B in accordance with the present invention.

FIG. 8A shows another illustrative program guide display screen in accordance with the present invention.

FIG. 8B shows an illustrative program guide a display screen that resulted in a user action on the display screen in FIG. 8A in accordance with the present invention.

FIG. 8C shows an illustrative program guide a display screen that resulted in a user action on the



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display screen in FIG. 8B in accordance with the present invention.

FIG. 9A shows another illustrative program guide display screen in accordance with the present invention.

FIG. 9B shows an illustrative program guide a display screen that resulted in a user action on the display screen in FIG. 9A in accordance with the present invention.

FIG. 9C shows an illustrative program guide a display screen that resulted in a user action on the display screen in FIG. 9B in accordance with the present invention.

FIG. 9D shows an illustrative program guide a display screen that resulted in a user action on the display screen in FIG. 9C in accordance with the present invention.

FIG. 9E shows an illustrative program guide a display screen that resulted in a user action on the display screen in FIG. 9D in accordance with the present invention.

FIG. 10 is a flow chart of illustrative steps of alternating advertisement modes in a FLIP region in accordance with the present invention.

FIG. 11A shows an illustrative program guide display screen with a FLIP feature in accordance with the present invention.

FIG. 11B shows an illustrative program guide display screen that may be presented when the user flips to another channel in FIG. 11A in accordance with the present invention.

FIG. 12 is a flow chart of illustrative steps involved in alternating advertisement modes in a BROWSE region in accordance with the present invention.

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FIG. 13A shows an illustrative program guide display screen with a BROWSE feature in accordance with the present invention.

FIG. 13B shows an illustrative program guide display screen that may be presented when the user browses to another time in FIG. 13A in accordance with the present invention.

FIG. 13C shows an illustrative program guide display screen that may be presented when the user browses to another time in FIG. 13B in accordance with the present invention.

#### Detailed Description of the Preferred Embodiments

An illustrative program guide system 10 in accordance with the present invention is shown in FIG. 1. Main facility 11 may contain a program guide database 13 for storing program guide information such as television program guide listings data, pay-per-view ordering information, television program promotional information, etc. Main facility 11 may also contain an advertising database 14 for storing advertising information. Information from databases 13 and 14 may be transmitted to television distribution facility 15 via communications link 12. Link 12 may be a satellite link, a telephone network link, an Internet link, a cable or fiber optic link, a microwave link, a combination of such links, or any other suitable communications path. If it is desired to transmit video signals (e.g., for advertising and promotional videos) over link 12 in addition to data signals, a relatively high bandwidth link such as a satellite link may be preferable to a relatively low bandwidth link such as a telephone line.

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Television distribution facility 15 is a facility for distributing television signals to users, such as a cable system headend, a broadcast distribution facility, or a satellite television  
5 distribution facility.

The program guide information transmitted by main facility 11 to television distribution facility 15 includes television program listings data such as program times, channels, titles, descriptions, etc.  
10 Transmitted program information also includes pay program data such as pricing information for individual programs and subscription channels, time windows for ordering programs and channels, telephone numbers for placing orders that cannot be impulse ordered, etc.  
15 The advertising information transmitted by main facility 11 to television distribution facility 15 includes text, graphics, and video advertisements for various products and services. If desired, some of the program guide and advertising information may be  
20 provided using data sources at facilities other than main facility 11. For example, data related to pay program order processing (e.g., billing data and the like) may be generated by an order processing and billing system that is separate from main facility 11  
25 and separate from television distribution facility 15. Similarly, advertising information may be generated by an advertising facility that is separate from main facility 11 and television distribution facility 15.

Regardless of its source, advertising  
30 information may be maintained on a server 16 within television distribution facility 15 if desired. Server 16 may be capable of handling text, graphics, and video. In addition, server 16 may be capable of providing interactive services such as near video on

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demand (NVOD) and video on demand (VOD). Server 16 may be based on one or more computers.

Television distribution facility 15 may distribute program guide and advertising information to the user television equipment 18 or other user equipment of multiple users via communications paths 23. Program guide data may be distributed over an out-of-band channel on paths 23. Advertising information may be distributed using any of a number of suitable techniques. For example, text and graphics advertisements may be distributed over an out-of-band channel using an out-of-band modulator. Video advertisements may also be distributed in this way, although large quantities of video information may be more efficiently distributed using one or more digital channels on path 23. Such digital channels may also be used for distributing text and graphics.

Each user may have a receiver such as set-top box 19 or other suitable television or computer equipment into which circuitry similar to set-top-box circuitry has been integrated. For clarity, the present invention is described primarily in connection with user equipment based on a set-top box arrangement. This is merely illustrative. The program guide may be implemented using user television equipment 18 that is based on a personal computer, a WebTV box, a personal computer television (PC/TV), or handheld computing device, etc. If desired, the program guide may be implemented using a client-server architecture using user television equipment 18 as a client processor and a server such as server 16.

Program guide data may be distributed to set-top boxes 19 periodically (e.g., once per hour or once per week). Program guide data may also be distributed

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continuously or on-demand. A connection may be established to television distribution facility 15 using communication link 23. A request for certain program data may be sent from the set-top box 19 to the television distribution facility 15. The television distribution facility 15 may respond by sending the program data that was requested back to the set-top box 19 using communications link 23. Main facility 11 may contain a processor to handle information distribution tasks. Each set-top box 19 may contain a processor to handle tasks associated with implementing a program guide application on the set-top box 19. Television distribution facility 15 may contain a processor for tasks associated with monitoring a user's interactions with the interactive program guide implemented on set-top boxes 19 and for handling tasks associated with the distribution of program guide and advertising information.

Each set-top box 19 may be coupled to an optional video recording device 20 (e.g., a videocassette recorder, personal video recorder), or any other type of recording device so that selected television programs may be recorded. Each video recording device 20 may be coupled to a display 21, which may be a computer monitor, a television, or any other suitable video output device. To record a program, set-top box 19 may tune to a particular channel and may send control signals to video recording device 20 (e.g., using an infrared transmitter) that direct video recording device 20 to start and stop recording at the appropriate times.

During use of the interactive television program guide implemented on set-top box 19, television program listings may be displayed on display 21. Set-

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top box 19, video recording device 20, and display 21 (if part of a television) may be controlled by one or more remote controls 22 or any other suitable user input interfaces such as a wireless keyboard, mouse, trackball, dedicated set of buttons, etc.

Communications paths 23 preferably have sufficient bandwidth to allow television distribution facility 15 to distribute scheduled television programming, pay programming, advertising and other promotional videos, and other video information to set-top boxes 19 in addition to non-video program guides and advertising data. Multiple television and audio channels (analog, digital, or both analog and digital) may be provided to set-top boxes 19 via communications paths 23. If desired, program listings and advertising information may be distributed by one or more distribution facilities that are similar to, but separate, from television distribution facility 15 using communications paths that are separate from communications paths 23 (e.g., using Internet paths).

Certain functions such as pay program purchasing and the remote monitoring of certain users' interactions with the program guide may require set-top boxes 19 to transmit data to television distribution facility 15 over communications paths 23. If desired, such data may be transmitted over telephone lines or other separate communications paths. If functions such as these are provided using facilities separate from television distribution facility 15, some of the communications involving set-top boxes 19 may be made directly with the separate facilities.

A number of suitable techniques may be used to distribute advertising videos. For example, if each path 23 includes a number of traditional analog

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television channels, one or more of these channels may be used to support a number of digital channels. The bandwidth of each analog channel that is used to support digital channels may support ten or more of such digital channels. If desired, videos may be provided from server 16 or other suitable equipment at television distribution facility 15 in a continuously-looped arrangement on these digital channels. Information provided to set-top box 19 may then be used to determine which digital channels to tune to when it is time to display a desired video. Alternatively, videos may be provided on demand. With this approach, set-top box 19 and server 16 may negotiate to determine a channel on which to provide the desired video. Videos that originate from main facility 11 or a separate facility may be distributed to user television equipment 18 using these or other suitable techniques or a combination of such techniques.

As shown in FIG. 2, the capabilities of server 16 may be provided using servers 30 located at network nodes 31. Servers such as servers 30 may be used instead of server 16 or may be used in conjunction with a server 16 located at television distribution facility 15.

Graphics information for advertisements may be downloaded periodically (e.g., once per day) to set-top boxes 19 of FIG. 1 and stored locally. The graphics information may be accessed locally when needed by the program guide implemented on set-top box 19. Alternatively, graphics information may be provided in a continuously-looped arrangement on one or more digital channels on paths 23. With such a continuously-looped arrangement, a map indicating the location of the latest graphics information may be

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downloaded periodically to set-top boxes 19 (e.g., once per day). This allows the content on the digital channels to be updated. The program guides on set-top boxes 19 may use the map to locate desired graphics information on the digital channels. Another approach involves using a server such as server 16 or servers 30 (FIG. 2) to provide the graphics information on request (e.g., after a set-top box 19 and that server have negotiated to set up a download operation). A bitmap or other suitable set of graphics information may then be downloaded from the server to the set-top box. If desired, the server may provide instructions to the set-top box informing the set-top box where the desired graphics information can be located on a particular digital channel. The graphics information can be updated periodically if the server that is responsible for providing the instructions for informing the set-top box of the location of the graphics information is also updated periodically.

Text information for advertisements may be provided to set-top boxes 19 using the same paths that are used for distributing program guide data. For example, advertising data from database 14 of FIG. 1 may be provided to set-top boxes 19 using link 12, television distribution facility 15, and paths 23. The text information may be stored locally in set-top boxes 19 and updated periodically (e.g., once per day). Text information may also be provided by server 16 using a continuously-looped arrangement or on request.

A cable modem may be used to distribute texts, graphics, and videos. Text information, graphics information, and videos for advertisements may also be distributed using a combination of these techniques or any other suitable technique.



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The program guide of the present invention may provide a display screen containing one or more advertisement regions. Each advertisement region may contain advertisements that are linked in sequence.

5 Such advertisement regions may be interactive. The sequence may contain two or more advertisements that are related by being directed toward common subject matter. For example, the first advertisement in a sequence may include a graphic promotion for a

10 television program. The second advertisement in the sequence may include an informative text description of the same program. Although the advertisements in the sequence are distinct, they are related and may be linked by displaying them one after another, (e.g. as

15 the user moves a highlight region through program listings displayed on the same display screen as the advertisement region). An advertisement that contains a graphic promotion or other attractive promotion may be called an "attraction mode advertisement."

20 "Attraction mode" may be defined as the state in which advertisements are either visually enticing or have promotional or commercial language that entices a user to look at the advertisement. An advertisement that contains informative text or the like may be called an

25 "information mode advertisement." "Information mode" may be defined as the state in which advertisements are more concerned with informing the user of a program, product, or service than with catching attention. The attraction mode is more attractive than the information

30 mode, and the information mode is more informative than the attraction mode. The promotional content of advertisements related to the same subject is different in the two modes. For example, an attraction mode advertisement for a television program may contain

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colorful graphics showing a scene from the television program, whereas an information mode advertisement for the program may contain text informing the user of the time at which the program airs. Text written in an unusual font or a color other than black is more promotional than black text in an ordinary font. A colorful graphic image with colorful text overlay saying "ER Fans, LOOK HERE!" is attractive, relative to a colorful graphic image with colorful text overlay saying "Watch ER Wednesday nights on NBC," which is more informative.

FIG. 3 is a flow chart that summarizes illustrative steps involved in providing advertisements to the user. After a user has invoked the interactive television program guide, the program guide may provide the user with program guide display screens containing program listings and interactive advertisements. If the user moves a highlight region among the program listings, different advertisements may be displayed in a linked sequence. For example, the mode of advertisements in the advertisement region or regions may alternate between attraction mode and information mode. If a linked sequence contains more than two advertisements, each advertisement may be displayed one after the other until the last advertisement in the sequence. Further movement of the highlight region may then direct the program guide to loop back to the beginning of the sequence and display the initial linked advertisement. If the user does not input anything and remains inactive for a specified period of time, such as five seconds, the advertisement modes may switch or a completely different set of advertisements may be displayed. This may continue indefinitely,

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changing the advertisements at regular time intervals, so long as there is no user activity.

FIGS. 4A-4C illustrate how the information mode advertisement may include plain text and the attraction mode advertisement may include graphics. FIG. 4A illustrates an interactive television program guide display screen with an advertisement region 41 with an advertisement in attraction mode and an advertisement region 42 with an advertisement in information mode. Also shown is a highlighted program listing 43. The advertisements that are displayed need not correspond to the program listings that are highlighted. In situations where the content of the advertisement and the highlighted program listing are related, it is only out of coincidence. In the arrangement of FIG. 4A, the two advertisements appearing on the upper left and upper right of the program guide display are not necessarily related to one another, but if desired, they may be related. If the user of the interactive television program guide were to move the highlight region (using arrow keys on a remote control 22) to highlight an adjacent program listing 44 in the grid, the advertisement modes of the advertisement regions may switch. This is illustrated in FIG. 4B. In particular, the attraction mode advertisement in region 41 of FIG. 4A changes to the information mode advertisement in region 41 of FIG. 4B when the highlight region is moved (using arrow keys on a remote control 22) from "Eyewitness News" to "ER." If desired, more than one movement of the highlight region may be required for the modes to switch. For example, after the user moves the highlight region over one different listing, nothing happens, and on the next move of the highlight region to a different listing,

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the advertisement modes may switch. This approach may be implemented with any number of required movements.

In FIG. 4B, the highlight region is on program listing 44, advertisement region 41 contains an  
5 information mode advertisement, and advertisement region 42 contains an attraction mode advertisement. If the user were to move the highlight region (using arrow keys on a remote control 22) again to an adjacent program listing 45 from the currently highlighted  
10 program listing 44, then the modes of the advertisements in the advertisement regions may change once again, back to the original modes displayed in FIG. 4A. This is illustrated in FIG. 4C which has an identical display to FIG. 4A (except that the  
15 highlighted cells are different). Thus, for region 41, for example, a limited sequence of advertisements is displayed in which a promotional graphic advertisement for a program is followed by an informative text advertisement and so forth.

20 In the arrangement illustrated in FIGS. 4A, 4B and 4C, and in other suitable arrangements, the attraction modes and information modes may be implemented so that the prevalent color of the attraction mode is used as a background color in the  
25 information mode. This is merely illustrative. If desired, the prevalent color of any advertisement in a sequence may be used as a background color or other suitable portion of other advertisements in the sequence so as to visually link or interrelate the  
30 advertisements in the sequence. The same may be applied to visual patterns.

The present invention is not limited to just television program guides, but rather may encompass any interactive television application. For example, a

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survey may be presented to a user after having viewed the world premier of a music video. As the user moves a highlight region from choice to choice and from question to question or between any other displayed  
5 selectable element, advertisements in one or more advertisement regions may sequence through a particular list of advertisements that may include both an information mode and an attraction mode in accordance with the present invention.

10           The advertisement regions in the program guide may be non-interactive or interactive. When a user selects an interactive advertisement region (using, perhaps, arrow keys set to an advertisement  
15 browse mode to move between advertisement regions, and an enter key to select an advertisement), additional information may be provided on the program, product, or service that is being advertised, regardless of the particular advertisement in the linked sequence that is being displayed. For example, if the user selects the  
20 advertisement displayed in advertisement region 41 of FIG. 4C, the program guide may provide a display screen such as the display screen shown in FIG. 5. The display screen may contain a detailed description of the item that was advertised in the selected  
25 advertisement and may display a video region 122 that contains a video stream related to the advertised item. A video button 120 may be displayed that provides the user with an opportunity to play the video stream. A record button 121 may be displayed to provide the user  
30 with an opportunity to schedule a recording of a program that is being described (or an infomercial or other such promotional video clip if a product or service is being described). A remind button 124 may be displayed that provides the user with the option of

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being reminded (e.g. by a pop-up window) before the advertised show is about to air. An additional information button 125 may be displayed that provides the user with additional information about the  
5 advertised item. In the illustrated case, additional air times may be displayed for "Wasteland" if the user selected the additional information button 125. Any suitable options or information may be presented to the user depending on the content of the selected  
10 advertisement. These features are explained in more detail in commonly assigned U.S. Patent Application 09/356,268 (David M. Rudnick, et al.) which is hereby incorporated by reference herein in its entirety. If  
15 desired options or information that do not depend on the content of the selected advertisement may be presented.

An advertisement region 123 may also be displayed. Advertisement region 123 may contain the advertisement that was selected to view the present  
20 information screen. If desired, the mode of this advertisement may remain constant. For example, it may always be in its attraction mode. However, if desired, the advertisement region 123 may display a sequence of linked advertisements that are in information mode and  
25 in attraction mode. The advertisements in the advertisement region 123 may change modes (i.e. attraction mode and information mode) on a time-interval basis of user inactivity or may otherwise automatically cycle through the advertisements in a  
30 linked sequence. If desired, the advertisements may cycle through the linked sequence of advertisements as the user moves a highlight region among buttons 120, 121, 124, and 125 or any other selectable element on the screen.

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FIGS. 6A-6C illustrate an arrangement that uses the information mode advertisements in text (i.e. advertisements that are displayed using primarily text instead of graphics), and attraction mode

5 advertisements in text. FIG. 6A shows an interactive television program guide screen in which there is an advertisement region 51 and an advertisement region 52 that both contain attraction mode advertisements. As a user moves the highlight region (using arrow keys on a

10 remote control 22) from program listing 53 to an adjacent program listing 54, the advertisements cycle to the next advertisements in their respective linked sequences, as illustrated in FIG. 6B, which shows an interactive television program guide screen with

15 advertisement region 51 and advertisement region 52 that both contain information mode advertisements. The advertisements of FIG. 6A may be considered to be attraction mode advertisements because they contain substantially less pertinent and informative text for

20 the item being advertised than the information mode advertisements of FIG. 6B. As shown in FIG. 6C, the user may move the highlight from the currently highlighted cell 54 to an adjacent cell 55, which causes the advertisement mode of the advertisements in

25 the advertisement regions to switch again.

If desired, the advertisements in a linked sequence may all be attraction mode advertisements, may all be information mode advertisements, or may all be any other types of advertisements, so long as each

30 advertisement in the linked sequence is advertising the same item.

FIGS. 7A-7C illustrate an arrangement in which an advertisement region may have an attraction mode that is in graphics and an information mode that

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is in graphics. FIG. 7A shows an interactive television program guide screen in which there is an advertisement region 61 and an advertisement region 62 that both contain attraction mode advertisements. As a user moves the highlight region (using arrow keys on a remote control 22) from program listing 63 to an adjacent program listing 64, the advertisement modes of the advertisement regions may switch as illustrated in FIG. 7B, which shows an interactive television program guide screen with advertisement region 61 and advertisement region 62 that both contain information mode advertisements. Advertisement region 61 in the program guide display of FIG. 7B contains a graphic advertisement whereas advertisement region 62 of FIG. 7B has only a text advertisement. Despite the graphic advertisement in advertisement region 61 of FIG. 7B, region 61 of FIG. 7B is in information mode, because the advertisement in region 61 of FIG. 7B informs the user that the program it is advertising is on "This Saturday." In the attraction mode advertisement in region 61 of the interactive television program guide screen in FIG. 7A, there is a graphic that entices the user to look at it, but does not offer substantially pertinent information about a particular program or air time. As shown in FIG. 7C, the user may move the highlight region from the currently highlighted program listing 64 to an adjacent program listing 65. This may again cause the advertisement mode of the advertisements in the advertisement regions to switch. This is illustrated in FIG. 7C which shows an interactive television program guide screen with advertisement region 61 and advertisement region 62 that both contain attraction mode advertisements.

When there are two advertisements that have



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identical graphical elements, but that differ in their textual content, the advertisement that has substantially more informative and pertinent content is an information mode advertisement and the other advertisement is an attraction mode advertisement. If there are two advertisements that have the same textual information, but differ in the graphical elements, then the advertisement with substantially more enticing graphics is an attraction mode advertisement and the other advertisement is an information mode advertisement. If neither advertisement has substantially more enticing graphics than the other nor has substantially more informative or pertinent information than the other, it is not appropriate to distinguish these advertisements based on their mode. Such advertisements may still be provided as part of a linked sequence if desired.

FIGS. 8A-8C illustrate an arrangement in which two advertisement regions contain related advertisements. The program guide simultaneously displays different promotional information for the same item (e.g., the same program, product, or service). If desired, the program guide may display advertisement modes simultaneously. FIG. 8A shows an interactive television program guide screen in which there is an advertisement region 71 and an advertisement region 72 that contain an information mode advertisement and an attraction mode advertisement, respectively. In this example, both advertisement regions display different promotional information for the television program "Wasteland." Advertisement region 71 contains an attraction mode advertisement for "Wasteland," while advertisement region 72 contains an information mode advertisement for "Wasteland." As a user moves the

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highlight region (using arrow keys on a remote control 22) from program listing 73 to an adjacent program listing 74, the advertisement modes of the advertisements in the advertisement regions may switch as illustrated in FIG. 8B. FIG. 8B shows an  
5 interactive television program guide screen with advertisement region 71 and advertisement region 72 that contain an attraction mode advertisement for "Wasteland" and an information mode advertisement for  
10 "Wasteland," respectively. The user may move the highlight region from the currently highlighted program listing 74 to an adjacent program listing 75, as shown in FIG. 8C. This may cause the advertisement mode of the advertisements in the advertisement regions to  
15 switch again. FIG. 8C shows an interactive television program guide screen with advertisement region 71 and advertisement region 72 containing an information mode advertisement and an attraction mode advertisement, respectively.

20 If desired, the program guide may display a linked sequence of advertisements that includes more than one information mode advertisement, more than one attraction mode advertisement, or more than one information mode advertisement, and more than one  
25 attraction mode advertisement for a particular item (e.g., program, product or service). This allows the user to be provided with more information in the information mode advertisements than would fit in a single advertisement region at one time. It also  
30 allows for some variety in the enticement mode that may help to attract the user to the advertisement region.

FIG. 9A shows an interactive television program guide screen in which there is an advertisement region 81 and an advertisement region 82 that both

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contain attraction mode advertisements. As a user moves the highlight region (using arrow keys on a remote control 22) from program listing 83 to an adjacent program listing 84, the advertisement modes of the advertisements in the advertisement regions may become those illustrated in FIG. 9B, which shows an interactive television program guide screen with advertisement region 81 and advertisement region 82 that contain an information mode advertisement and an attraction mode advertisement, respectively. The advertisement in advertisement region 82 did not change modes as the highlight region moved, but rather, changed the advertisement being displayed to another advertisement for the same program, product, or service but with different promotional information. As a user moves the highlight region from the currently highlighted program listing 84 to adjacent program listing 85, the advertisement modes of the advertisement regions may become those illustrated in FIG. 9C, which shows an interactive television program guide screen with advertisement region 81 and advertisement region 82 that contain an attraction mode advertisement and an information mode advertisement, respectively. As a user moves the highlight region from the currently highlighted program listing 85 to adjacent program listing 87, the advertisement modes of the advertisements in the advertisement regions may become those illustrated in FIG. 9D, which shows an interactive television program guide screen with advertisement region 81 and advertisement region 82, both containing information mode advertisements. Advertisement region 82 did not change modes as the highlight region was moved, but rather, changed the advertisement being displayed to another advertisement

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for the same program or product but with different promotional information. As a user moves the highlight region from the currently highlighted program listing 87 to adjacent program listing 89, the advertisement modes of the advertisements in the advertisement regions may become those illustrated in FIG. 9E which shows an interactive television program guide screen with advertisement region 81 and advertisement region 82 containing advertisements both in attraction mode.

10           This embodiment is not limited to any particular number of advertisements that may be encompassed by the attraction mode or by the information mode. The modes and the advertisements may be alternated in a patterned matter or randomly. A color scheme that visually links all or most of the linked advertisements in a sequence for a particular program, product, or service may be used if desired to provide commonality among the different advertisements.

15           A linked sequence of advertisements contains multiple advertisements that are directed to the same item (e.g., the same product, program, service, etc.). The advertisements in the linked sequence may use a common color scheme. If there are two advertisements in the sequence, movement of the highlight region (using arrow keys on a remote control 22) among program listings or other suitable screen elements such as option buttons or the like may direct the program guide to alternate which advertisement is displayed on the program guide screen. If desired, one of the advertisements may be an attraction mode advertisement and the other may be an information mode advertisement. If there are three or more advertisements in the sequence, each movement of the highlight region may direct the program guide to display the next

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advertisement in the sequence. After the last advertisement in the sequence has been displayed, further movement of the highlight region may cause the program guide to loop back to the beginning of the sequence, so that the first advertisement in the sequence is displayed and so forth. The advertisements in a linked sequence of three or more advertisements may be attraction mode advertisements, information mode advertisements, a combination of attraction mode advertisements and information mode advertisements, or any suitable advertisements (i.e., advertisements whose content may not be readily classified as either enticing or informative).

If desired, advertisements may be displayed using a FLIP feature or a BROWSE feature. The FLIP and BROWSE features are graphic overlays that are presented by the program guide on top of a current television program. The FLIP and BROWSE displays contain program listings information. In FLIP mode, the program listings are always in synchronization with the currently-displayed program. The user may change channels in FLIP mode using up and down channel keys on the remote control. In BROWSE mode, program listings may be displayed for channels other than the channel of the current program. The user may browse to such program listings by using up and down arrow keys on the remote control. In addition, the user may browse to program listings at other times by pressing the left and right arrow keys on the remote control. The FLIP and BROWSE features are described in commonly-assigned U.S. Patent Application No. 09/070555 (Edward B. Knudson, et al.) which is hereby incorporated by reference herein in its entirety.

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FIG. 10 is a flow chart of illustrative steps involved in displaying advertisements in the FLIP mode. Upon the user's activation of the FLIP mode, the program guide displays a FLIP region containing one or more advertisement regions at step 200. The advertisements in these regions may be non-interactive or may be interactive. If the user FLIPS to another channel, the advertisement region may be used to display any other advertisement or another advertisement in a linked sequence at step 202. If desired, the advertisement that is displayed at step 202 may be related to the current channel. The advertisements may be any suitable advertisements, including information mode advertisements and attraction mode advertisements. Such advertisement modes may or may not change in a pattern as the user flips through channels. If there is a specified period of inactivity by the user, then the displayed advertisement may be changed (e.g., from an attraction mode advertisement to an information mode advertisement, etc.) at step 204. If a user selects an advertisement, further information about the program, product, or service being advertised may be displayed at step 206.

25 In one suitable arrangement, as illustrated by FIG. 11A, as a user is flipping through channels in FLIP mode, the program guide displays FLIP region 101. An advertisement region 100 in FLIP region 101 displays changing advertisements. For example, advertisement region 100 may display an advertisement in attraction mode promoting "Animal Farm" on TNT while the FLIP region 101 is displaying a program listing 208 for TNT. As a user flips forward (or backward), a screen such as the one in FIG. 11B may be displayed where the FLIP

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region 101 includes program listing information for VH-1 and has a corresponding advertisement for VH-1 in advertisement region 100. The advertisement displayed in advertisement region 100 may change modes (i.e. attraction mode and information mode) or may otherwise change to different advertisements after a period of user inactivity or as the user flips from one channel to another.

The operation of the BROWSE feature with advertisements is shown in FIG. 12. Upon the user's activation of the BROWSE region, the BROWSE region is displayed with one or more advertisement regions at step 210. If the user browses to another time slot or to another channel, the advertisements' mode may switch (step 212). In addition, the mode of the advertisements may switch after a period of inactivity by the user at step 213. In one embodiment, the FLIP region may be removed after a predetermined period of user inactivity and the current program may be displayed in the full screen. If desired, the specified period of user inactivity that determines when the advertisements change may be set to be less than the predetermined period of user inactivity so that the advertisements may change before the FLIP region is removed. Alternately, if desired, user inactivity may have no effect on the changing of advertisements. If a user selects an advertisement, further information about the item (e.g., the program, product, or service) being advertised may be displayed at step 214.

FIG. 13A shows an illustrative BROWSE region 112 with advertisements. As a user browses through time slots for a particular channel or browses through channels for a particular time slot, advertisement

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region 110 may change between advertisements in a limited sequence (e.g., an attraction mode advertisement and an information mode advertisement) or otherwise change to different advertisements. The advertisements being displayed may all be related to the current channel for which program listings are being displayed in BROWSE region 112. In the example of FIG. 13A, BROWSE region 112 is displaying a program listing 216 for HBO. The advertisement region 110 contains an advertisement for programming on HBO. If desired, the advertisement need not relate to the channel for which listings are displayed. As a user browses to another time slot, the BROWSE region may be changed as shown in FIG. 13B. In the example of FIG. 13B, the user has browsed ahead in time by half of an hour. With that action, the advertisement region 110 changed to display an information mode advertisement for the programming that was previously being promoted using an attraction mode advertisement. If the user browses to another time slot, the advertisement region 110 may be switched back to attraction mode as shown in FIG. 13C. If desired, linked sequences of three or more related advertisements may be presented. Each time the user moves ahead or back in time or moves from one channel to another, a different advertisement in the sequence may be displayed.

If desired, the interactive program guide may be implemented as an on-line program guide on the Internet. The on-line guide may be displayed using a web browser on a personal computer, a web-enabled set-top box, a Web TV box, a personal computer television (PC/TV), or other suitable user equipment with suitable Internet access capabilities. Movement of a pointing device or use of remote control keys may trigger the



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highlighting of program listings in the web-based  
interactive television program guide. Such  
highlighting events may cause advertisements contained  
in advertisement regions in the BROWSE screen to change  
5 between attraction mode and information mode or to  
otherwise change between advertisements. The  
advertisements may be part of a linked sequence. With  
such an arrangement, program listings data and  
advertisement data may be stored remotely on a server  
10 that the user of the on-line guide may access through  
an Internet connection and may download the data  
locally.

The foregoing is merely illustrative of the  
principles of this invention and various modifications  
15 can be made by those skilled in the art without  
departing from the scope and spirit of the invention.

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What is claimed is

1. A method for presenting advertisements to a user with an interactive television application, comprising:

displaying a display screen using the interactive television application, wherein the display screen contains a plurality of selectable elements and at least one advertisement region;

displaying a highlight region on a given one of the selectable elements, wherein the highlight region is movable by the user; and

displaying a sequence of linked advertisements in the advertisement region one after another as the user moves the highlight region among the selectable elements, wherein the linked advertisements are related by being used to promote the same item.

2. The method defined in claim 1 wherein displaying the sequence of linked advertisements comprises displaying a sequence of linked advertisements that includes at least one information mode advertisement and at least one attraction mode advertisement.

3. The method defined in claim 1 wherein displaying the sequence of linked advertisements comprises displaying, in alternation, an information mode advertisement and an attraction mode advertisement.

4. The method defined in claim 1 wherein displaying the sequence of linked advertisements

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comprises displaying, randomly, an information mode advertisement and an attraction mode advertisement.

5. The method defined in claim 1, wherein each time the user moves the highlight region to another selectable element, the displayed advertisements change to other advertisements in the respective sequence of linked advertisements.

6. The method defined in claim 1, wherein the displayed advertisements in each of the advertisement regions change to other advertisements in the respective sequence of linked advertisements when the user moves the highlight region a specified number of times greater than one.

7. The method defined in claim 1, wherein the displayed advertisements in each of the advertisement regions change to other advertisements in the respective sequence of linked advertisements after a specified period of user inactivity.

8. The method defined in claim 1, wherein the advertisements are interactive and wherein if the user selects an advertisement, further information about the advertised item is displayed.

9. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions.

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10. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein the displayed advertisements in each of the two advertisement regions change to other advertisements in the respective sequence of linked advertisements each time the user moves the highlight region.

11. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein the displayed advertisements in each of the two advertisement regions change to other advertisements in the respective sequence of linked advertisements after a specified period of user inactivity.

12. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein the displayed advertisements in each of the two advertisement regions change to other advertisements in the respective sequence of linked

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advertisements after the user moves the highlight region a specified number of times greater than one.

13. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein displaying the sequence of linked advertisements comprises displaying, in alternation, an information mode advertisement and an attraction mode advertisement.

14. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein the sequence of linked advertisements in one of the advertisement regions and the sequence of linked advertisements in the other advertisement regions are advertising the same item.

15. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein displaying the sequence of linked advertisements comprises displaying, in alternation, an

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information mode advertisement and an attraction mode advertisement.

16. The method defined in claim 1 further comprising:

displaying the selectable elements and two advertisement regions; and

displaying a sequence of linked advertisements in each of the two advertisement regions, wherein one advertisement region contains an information mode advertisement, and the other region contains an attraction mode advertisement at any point in time.

17. The method defined in claim 1, wherein there is at least one color that is common to all of the advertisements in any individual sequence of advertisements.

18. The method defined in claim 1, wherein there is at least one visual pattern that is common to all of the advertisements in any individual sequence of advertisements.

19. A method for presenting advertisements to a user with an interactive television program guide, comprising:

displaying a program guide display screen using the interactive television program guide, wherein the display screen contains a plurality of program listings and at least one advertisement region;

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displaying a highlight region on a given one of the program listings that is movable by the user; and

displaying a sequence of linked advertisements in the advertisement region one after another as the user moves the highlight region among program listings, wherein the linked advertisements are related by being used to promote the same item.

20. The method defined in claim 19 wherein displaying the sequence of linked advertisements comprises displaying a sequence of linked advertisements that includes at least one information mode advertisement and at least one attraction mode advertisement.

21. The method defined in claim 19, wherein each time the user moves the highlight region to another program listing, the displayed advertisements change to other advertisements in the respective sequence of linked advertisements.

22. A method for presenting advertisements to a user with an interactive television program guide, comprising:

displaying a program guide screen containing video for a given television channel and a program listings display region that contains a program listing for a single channel and at least one advertisement region, wherein the advertisement regions contain a linked sequence of advertisements and wherein the linked advertisements are related by being used to promote the same item.

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23. The method defined in claim 22 wherein the sequence of linked advertisements comprises a sequence of linked advertisements that includes at least one information mode advertisement and at least one attraction mode advertisement.

24. The method defined in claim 22, wherein the displayed advertisements are changed to other advertisements in the respective linked sequence of advertisements each time the displayed program listing is changed.

25. The method defined in claim 22, wherein the displayed advertisements in each of the advertisement regions change to other advertisements in the respective sequence of linked advertisements after a specified period of user inactivity.

26. The method defined in claim 22, wherein the displayed advertisements are interactive and wherein if the user selects an advertisement, further information about the advertised item is displayed.

27. The method defined in claim 22 further comprising:

displaying the program listing and one advertisement region; and  
displaying a sequence of linked advertisements in the advertisement region.

28. The method defined in claim 22 further comprising:

displaying the program listing and one advertisement region; and



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displaying a sequence of linked advertisements in the advertisement region, and wherein displaying the sequence of linked advertisements comprises displaying, in alternation, an information mode advertisement and an attraction mode advertisement.

29. The method defined in claim 22 further comprising:

displaying the program listing and one advertisement region; and

displaying a sequence of linked advertisements in the advertisement region, and wherein the displayed advertisement is changed to another advertisement in the linked sequence of advertisements each time the displayed program listing is changed.

30. The method defined in claim 22 further comprising:

displaying the program listing and one advertisement region; and

displaying a sequence of linked advertisements in the advertisement region, and wherein the displayed advertisement is changed to another advertisement in the linked sequence of advertisements after a specified period of user inactivity.

31. A television application system on which an interactive television application is implemented, comprising:

user equipment configured to display a television application display screen using the interactive television application, wherein the display

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screen contains a plurality of selectable elements and at least one advertisement region;

user equipment configured to display a highlight region on a given one of the selectable elements, wherein the highlight region is movable by the user; and

user equipment configured to display a sequence of linked advertisements in the advertisement region one after another as the user moves the highlight region among the selectable elements, wherein the linked advertisements are related by being used to promote the same item.

32. The system defined in claim 31 wherein the user equipment comprises user television equipment.

33. The system defined in claim 31 wherein the user equipment comprises a set-top box.

34. The system defined in claim 31 wherein the interactive television application is an on-line application and wherein the user equipment comprises a personal computer.

35. The system defined in claim 31, wherein the user equipment comprises a remote control.

36. The system defined in claim 31 wherein the user equipment is further configured to:

display the sequence of linked advertisements, which comprises displaying a sequence of linked advertisements that includes at least one information mode advertisement and at least one attraction mode advertisements.

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37. The system defined in claim 31 wherein the user equipment is further configured to:

display the sequence of linked advertisements, which comprises displaying, in alternation, an information mode advertisement and an attraction mode advertisement.

38. The system defined in claim 31 wherein the user equipment is further configured to:

display the sequence of linked advertisements, which comprises displaying, randomly, an information mode advertisement and an attraction mode advertisement.

39. The system defined in claim 31 wherein the user equipment is further configured to:

change the displayed advertisements to other advertisements in the respective sequence of linked advertisements each time the user moves the highlight region to another selectable element.

40. The system defined in claim 31 wherein the user equipment is further configured to:

change the displayed advertisements in each of the advertisement regions to other advertisements in the respective sequence of linked advertisements when the user moves the highlight region a specified number of times greater than one.

41. The system defined in claim 31 wherein the user equipment is further configured to:

change the displayed advertisements in each of the advertisement regions to other advertisements in the respective sequence of linked

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advertisements after a specified period of user inactivity.

42. The system defined in claim 31 wherein the user equipment is further configured to:

display further information about an advertised item if the corresponding advertisement is selected by the user.

43. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions.

44. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions, wherein the displayed advertisements in each of the two advertisement regions change to other advertisements in the respective sequence of linked advertisements each time the user moves the highlight region.

45. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

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display a sequence of linked advertisements in each of the two advertisement regions, wherein the displayed advertisements in each of the two advertisement regions change to other advertisements in the respective sequence of linked advertisements after a specified period of user inactivity.

46. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions, wherein the displayed advertisements in each of the two advertisement regions change to other advertisements in the respective sequence of linked advertisements after the user moves the highlight region a specified number of times greater than one.

47. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions, wherein displaying the sequence of linked advertisements comprises displaying, in alternation, an information mode advertisement and an attraction mode advertisement.

48. The system defined in claim 31 wherein the user equipment is further configured to:

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display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions, and wherein each time the user moves the highlight region to another selectable element, the displayed advertisement changes to other advertisements in the respective sequence of linked advertisements.

49. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions, wherein the sequence of linked advertisements in one of the advertisement regions and the sequence of linked advertisements in the other advertisement regions are advertising the same item.

50. The system defined in claim 31 wherein the user equipment is further configured to:

display the selectable elements and two advertisement regions; and

display a sequence of linked advertisements in each of the two advertisement regions, wherein one advertisement region contains an information mode advertisement, the other region contains an attraction mode advertisement at any point in time.

51. The system defined in claim 31, wherein there is at least one color that is common to all of

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the advertisements in any individual sequence of advertisements.

52. The system defined in claim 31, wherein there is at least one visual pattern that is common to all of the advertisements in any individual sequence of advertisements.

53. A program guide system on which an interactive television program guide is implemented, comprising:

user equipment configured to display a program guide display screen using the interactive television program guide, wherein the display screen contains a plurality of program listings and at least one advertisement region;

user equipment configured to display a highlight region on a given one of the program listings that is movable by the user; and

user equipment configured to display a sequence of linked advertisements in the advertisement region one after another as the user moves the highlight region among the program listings, wherein the linked advertisements are related by being used to promote the same item.

54. The program guide system defined in claim 53 wherein the interactive television program guide is an on-line program guide and wherein the user equipment comprises a personal computer.

55. The program guide system defined in claim 53 wherein the user equipment is further configured to:

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display the sequence of linked advertisements, which comprises displaying a sequence of linked advertisements that includes at least one information mode advertisement and at least one attraction mode advertisements.

56. The program guide system defined in claim 53 wherein the user equipment is further configured to:

change the displayed advertisements to other advertisements in the respective sequence of linked advertisements each time the user moves the highlight region to another program listing.

57. A program guide system on which an interactive television program guide is implemented, comprising:

user equipment configured to display a program guide screen containing video for a given television channel and a program listings display region that contains a program listing for a single channel and at least one advertisement, wherein the advertisement is one of a linked sequence of advertisements and wherein linked advertisements are related by being used to promote the same item.

58. The program guide system defined in claim 57 wherein the user equipment comprises user television equipment.

59. The program guide system defined in claim 57 wherein the user equipment comprises a set-top box.



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60. The program guide system defined in claim 57 wherein the interactive television program guide is an on-line program guide and wherein the user equipment comprises a personal computer.

61. The program guide system defined in claim 57 wherein the user equipment comprises a remote control.

62. The program guide system defined in claim 57 wherein the user equipment is further configured to:

display the sequence of linked advertisements comprising a sequence of linked advertisements that includes at least one information mode advertisement and at least one attraction mode advertisement.

63. The program guide system defined in claim 57 wherein the user equipment is further configured to:

change the displayed advertisements to other advertisements in the respective linked sequence of advertisements each time the displayed program listing is changed.

64. The program guide system defined in claim 57 wherein the user equipment is further configured to:

change the displayed advertisements in each of the advertisement regions to other advertisements in the respective sequence of linked advertisements after a specified period of user inactivity.

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65. The program guide system defined in claim 57 wherein the user equipment is further configured to:

display further information about an advertised item if the corresponding advertisement is selected by the user.

66. The program guide system defined in claim 57 wherein the user equipment is further configured to:

display the program listing and one advertisement region; and

display a sequence of linked advertisements in the advertisement region.

67. The program guide system defined in claim 57 wherein the user equipment is further configured to:

display the program listing and one advertisement region; and

display a sequence of linked advertisements in the advertisement region, and wherein displaying the sequence of linked advertisements comprises displaying, in alternation, an information mode advertisement and an attraction mode advertisement.

68. The program guide system defined in claim 57 wherein the user equipment is further configured to:

display the program listing and one advertisement region; and

display a sequence of linked advertisements in the advertisement region, and wherein

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the displayed advertisement is changed to another advertisement in the linked sequence of advertisements each time the displayed program listing is changed.

69. The program guide system defined in claim 57 wherein the user equipment is further configured to:

display the program listing and one advertisement region; and

display a sequence of linked advertisements in the advertisement region, and wherein the displayed advertisement is changed to another advertisement in the linked sequence of advertisements after a specified period of user inactivity.

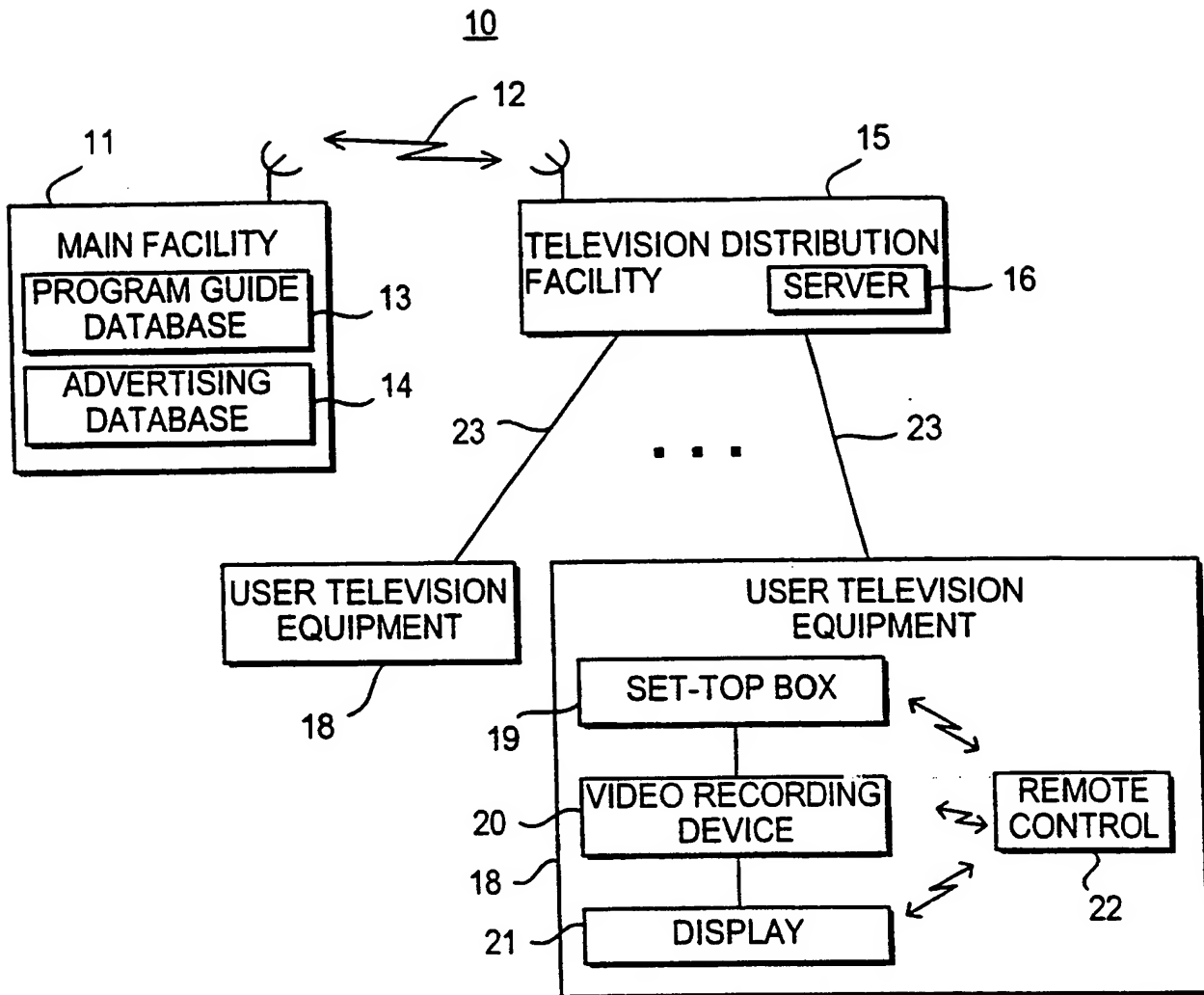


FIG. 1

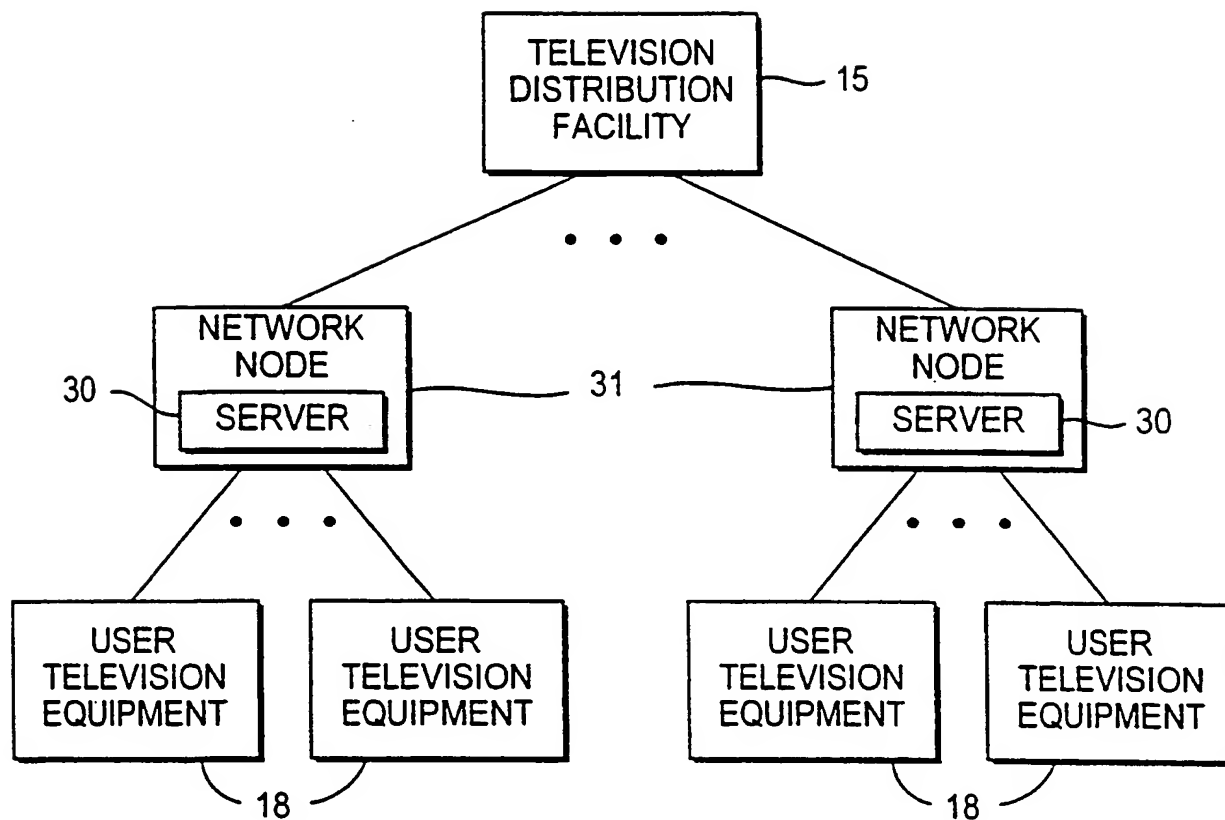


FIG. 2

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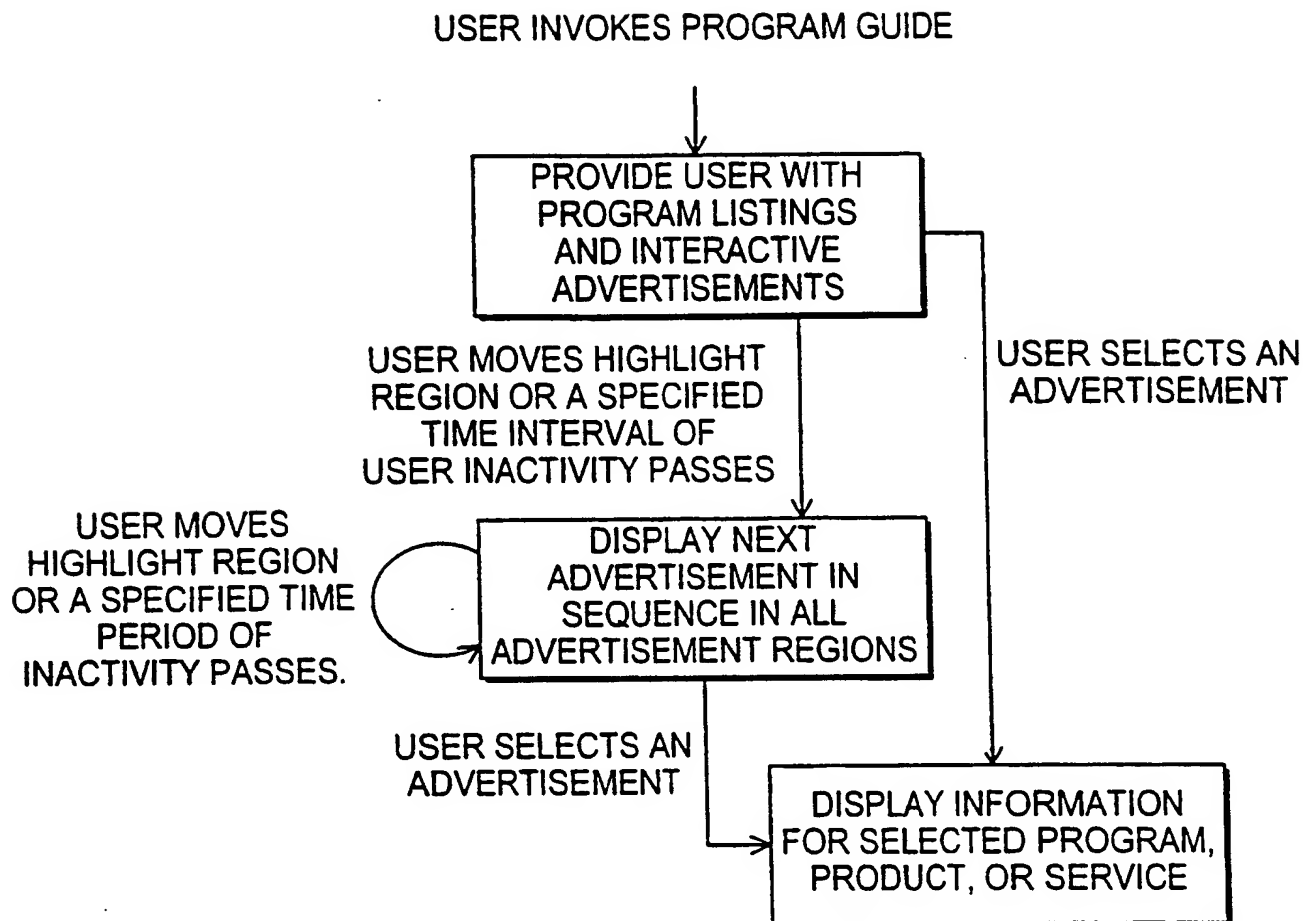


FIG. 3

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WASTELAND

THURSDAYS

TV  
GUIDE

HARSH REALM  
ON FOX  
OCT 8 AT 9:PM  
CLICK HERE

7:00

7:30

8:00

CBS

60 MINUTES

NASH BRIDGES

TBS

PAID  
PROGRAMMING

NATIONAL LAMPOON'S VACATION

NBC

EYEWITNESS NEWS

ER

FOX

WILD POLICE HOME VIDEOS

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FIG. 4A

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WASTELAND  
THURSDAYS  
ON ABC  
CLICK HERE

TV  
GUIDE

HARSH REALM



	7:00	7:30	8:00
CBS	60 MINUTES		NASH BRIDGES
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
NBC	EYEWITNESS NEWS		ER
FOX	WILD POLICE HOME VIDEOS		



FIG. 4B



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	<b>WASTELAND</b>  <b>THURSDAYS</b>	<b>TV GUIDE</b>		<b>HARSH REALM ON FOX OCT 8 AT 9:PM CLICK HERE</b>
	7:00	7:30	8:00	
CBS	60 MINUTES		NASH BRIDGES	
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION		
NBC	EYEWITNESS NEWS		ER	
FOX	WILD POLICE HOME VIDEOS			

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FIG. 4C

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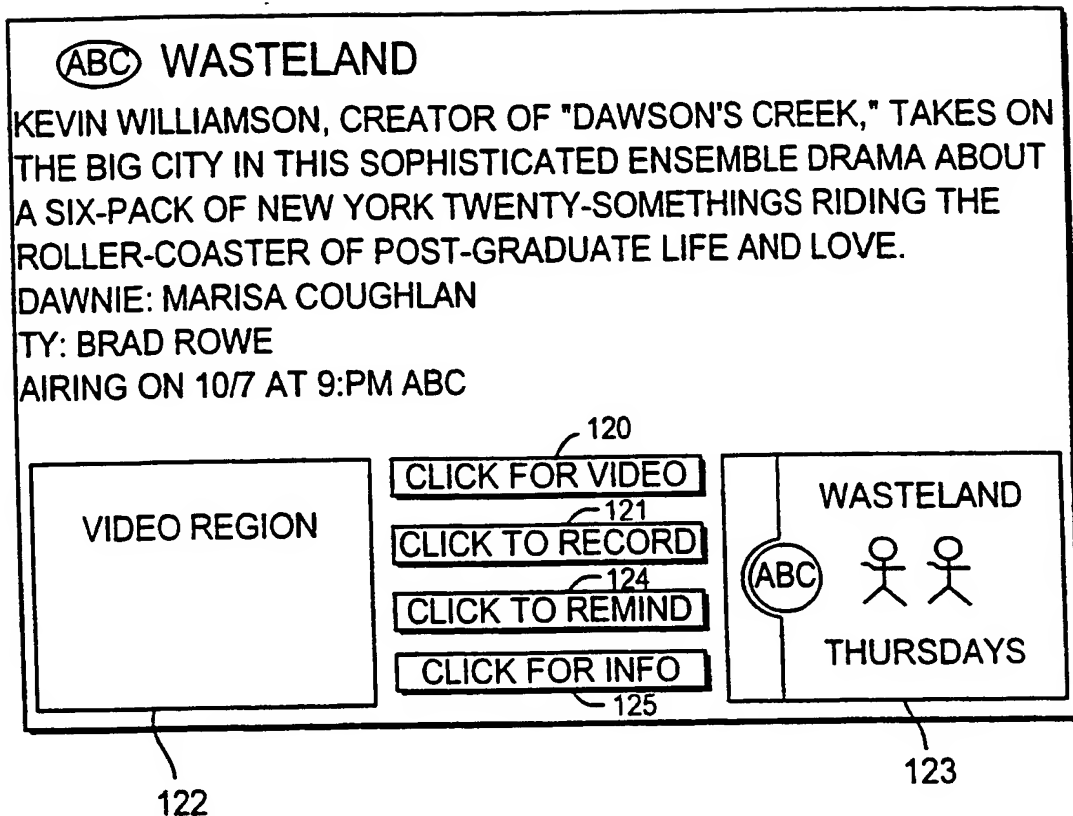


FIG. 5

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51

52

WATCH  
A&E

TV  
GUIDE

BEHOLD  
THE POWER  
OF CHEESE™  
CLICK HERE

7:00

7:30

8:00

CBS 60 MINUTES NASH BRIDGES

TBS PAID PROGRAMMING NATIONAL LAMPOON'S VACATION

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NBC EYEWITNESS NEWS ER 53

FOX WILD POLICE HOME VIDEOS

FIG. 6A

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51 WAKE UP TO BREAKFAST WITH THE ARTS ON A&E ON SUNDAY MORNINGS		52 CLICK HERE TO BEHOLD THE POWER OF CHEESE	
TV GUIDE			
	7:00	7:30	8:00
CBS	60 MINUTES		NASH BRIDGES
55 TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
54 NBC	EYEWITNESS NEWS		ER
FOX	WILD POLICE HOME VIDEOS		

FIG. 6B

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WATCH  
A&E

# TV GUIDE

BEHOLD THE POWER  
OF CHEESE™  
CLICK HERE

7:00

7:30

8:00

CBS

60 MINUTES

NASH BRIDGES

TBS

PAID  
PROGRAMMING

NATIONAL LAMPOON'S VACATION

NBC

EYEWITNESS NEWS

ER

FOX

WILD POLICE HOME VIDEOS

FIG. 6C

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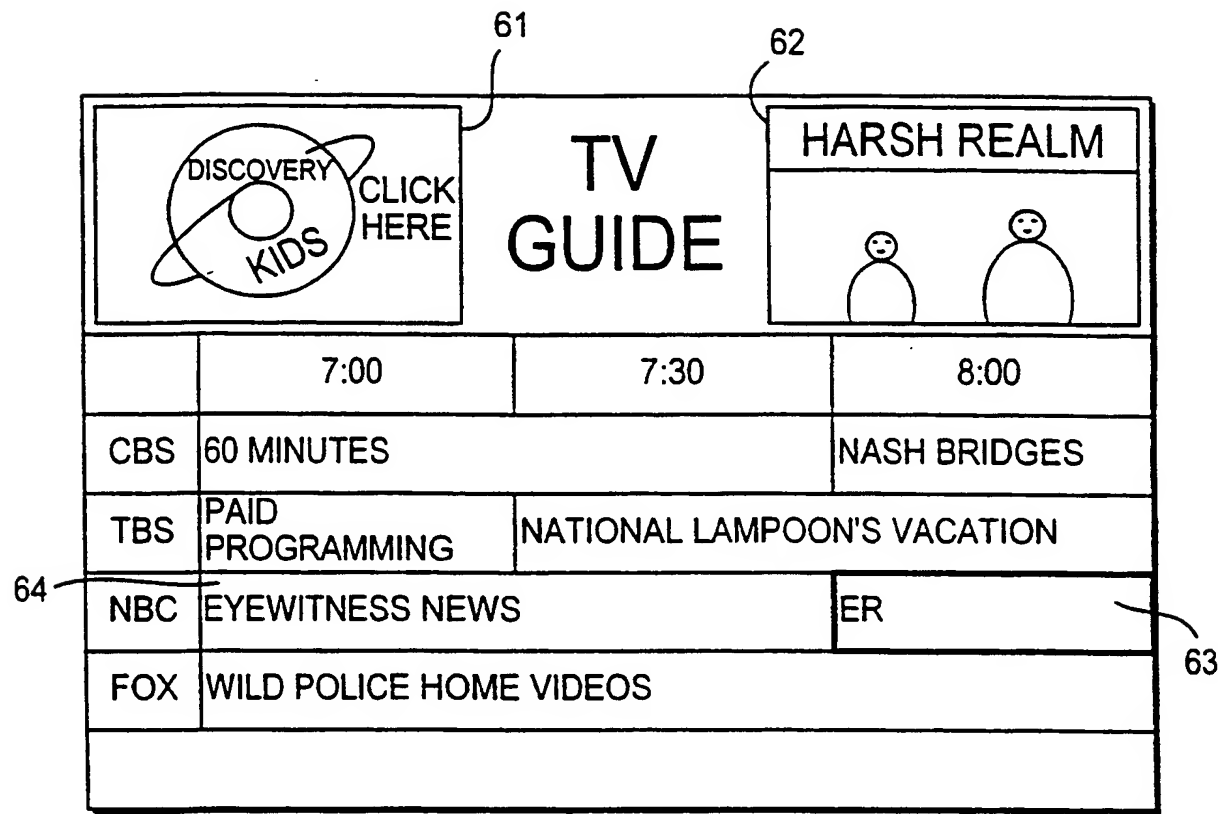


FIG. 7A

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<div>61<div>ANTS! ON DISCOVERY KIDS THIS SATURDAY</div></div> <div>62<div>TV GUIDE</div></div> <div><div>HARSH REALM ON FOX OCT 8 AT 9:PM CLICK HERE</div></div>			
	7:00	7:30	8:00
	CBS 60 MINUTES		NASH BRIDGES
65	TBS PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
64	NBC EYEWITNESS NEWS		ER
	FOX WILD POLICE HOME VIDEOS		

FIG. 7B

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61

62

		<b>TV GUIDE</b>		<b>HARSH REALM</b> 	
	7:00	7:30	8:00		
CBS	60 MINUTES		NASH BRIDGES		
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION			
NBC	EYEWITNESS NEWS		ER		
FOX	WILD POLICE HOME VIDEOS				

65

FIG. 7C



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71

WASTELAND

ABC

THURSDAYS

72

TV

GUIDE

WASTELAND

THURSDAYS

ON ABC

CLICK HERE

	7:00	7:30	8:00
CBS	60 MINUTES		NASH BRIDGES
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
NBC	EYEWITNESS NEWS		ER
FOX	WILD POLICE HOME VIDEOS		

73

74

FIG. 8A

<div>WASTELAND THURSDAYS ON ABC CLICK HERE</div>		<div>TV GUIDE</div>		<div><div>WASTELAND</div><div><div>ABC</div><div><div></div><div></div></div></div><div>THURSDAYS</div></div>	
	7:00	7:30		8:00	
CBS	60 MINUTES			NASH BRIDGES	
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION			
NBC	EYEWITNESS NEWS			ER	
FOX	WILD POLICE HOME VIDEOS				

FIG. 8B

ABC

WASTELAND

THURSDAYS

TV

GUIDE

WASTELAND


THURSDAYS

ON ABC


CLICK HERE

	7:00	7:30	8:00
CBS	60 MINUTES		NASH BRIDGES
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
NBC	EYEWITNESS NEWS		ER
FOX	WILD POLICE HOME VIDEOS		

FIG. 8C

**HBO**  
  
FAMILY  
CLICK FOR MORE

# TV GUIDE



SEE THE  
WIZARD  
ON TBS

7:00

7:30

8:00

CBS

60 MINUTES

NASH BRIDGES

TBS

PAID  
PROGRAMMING

NATIONAL LAMPOON'S VACATION

NBC

EYEWITNESS NEWS

ER

FOX

WILD POLICE HOME VIDEOS

FIG. 9A


18/28

81

HBO FAMILY  
WATCH IT  
TOGETHER  
TONIGHT

82

TV  
GUIDE



SHARK  
ATTACK!

ON TBS

	7:00	7:30	8:00
CBS	60 MINUTES		NASH BRIDGES
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
NBC	EYEWITNESS NEWS		ER
FOX	WILD POLICE HOME VIDEOS		

84

85

FIG. 9B

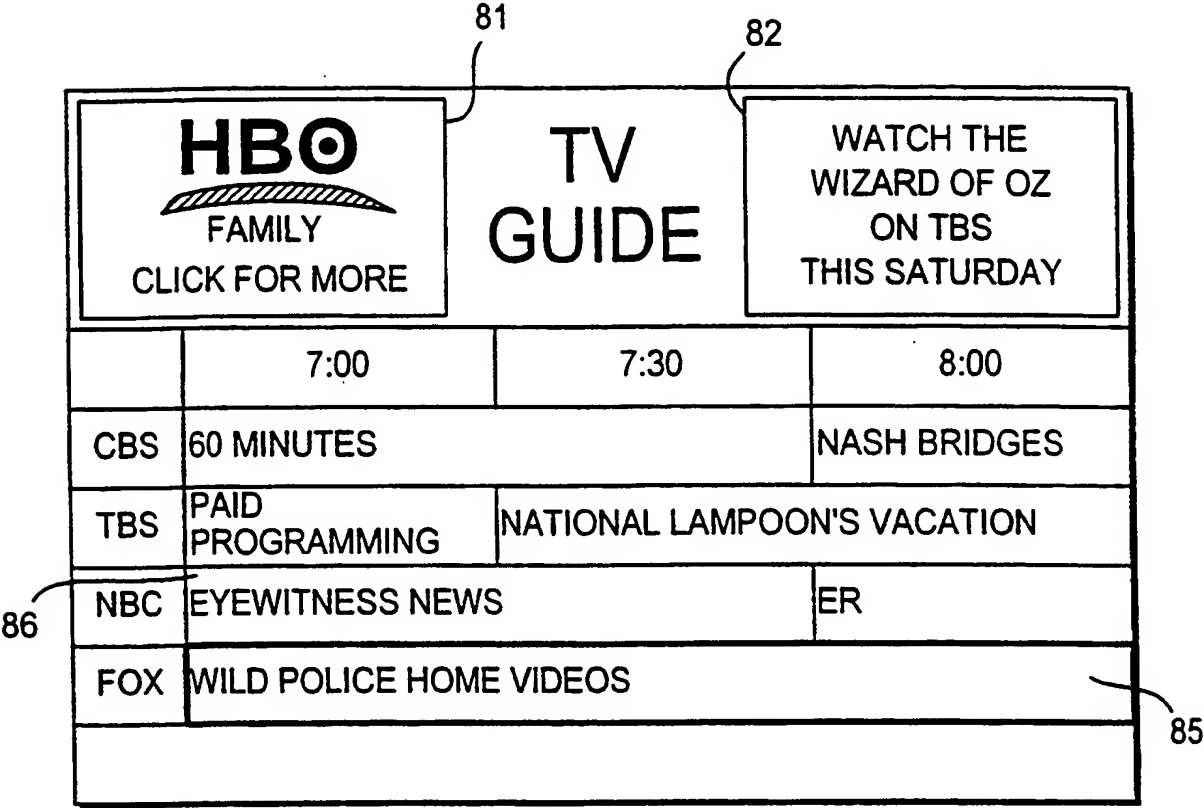


FIG. 9C


20/28

HBO FAMILY WATCH IT TOGETHER TONIGHT		TV GUIDE		WATCH SHARK ATTACK! SUNDAY NIGHT ON TBS	
	7:00	7:30	8:00		
CBS	60 MINUTES			NASH BRIDGES	
TBS	PAID PROGRAMMING		NATIONAL LAMPOON'S VACATION		
NBC	EYEWITNESS NEWS			ER	
FOX	WILD POLICE HOME VIDEOS				

FIG. 9D

81

HBO




FAMILY

CLICK FOR MORE

TV  
GUIDE

82

ROCKY



ON TBS

	7:00	7:30	8:00
CBS	60 MINUTES		NASH BRIDGES <div>89</div>
TBS	PAID PROGRAMMING	NATIONAL LAMPOON'S VACATION	
NBC	EYEWITNESS NEWS		ER
FOX	WILD POLICE HOME VIDEOS		

FIG. 9E



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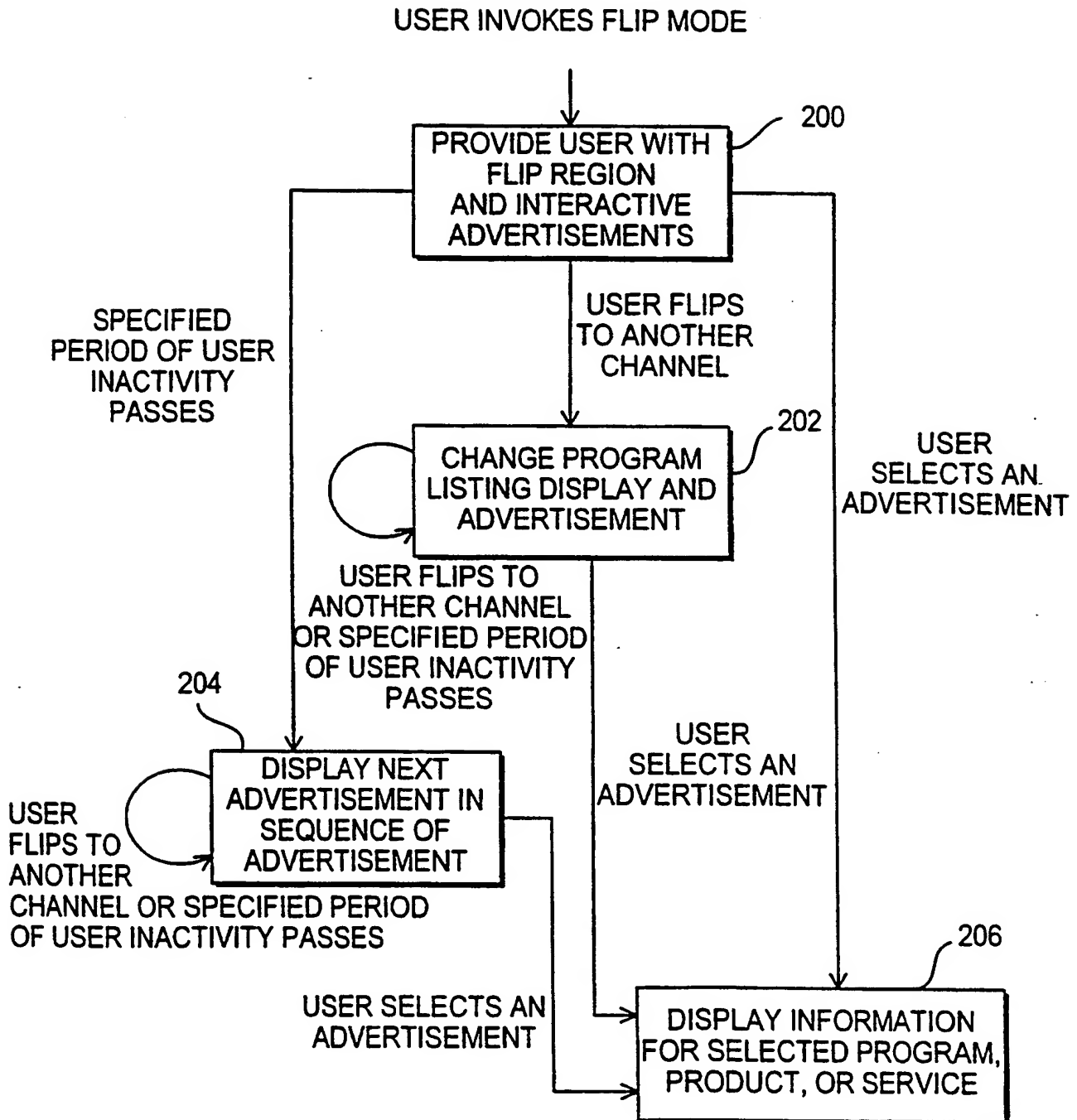


FIG. 10

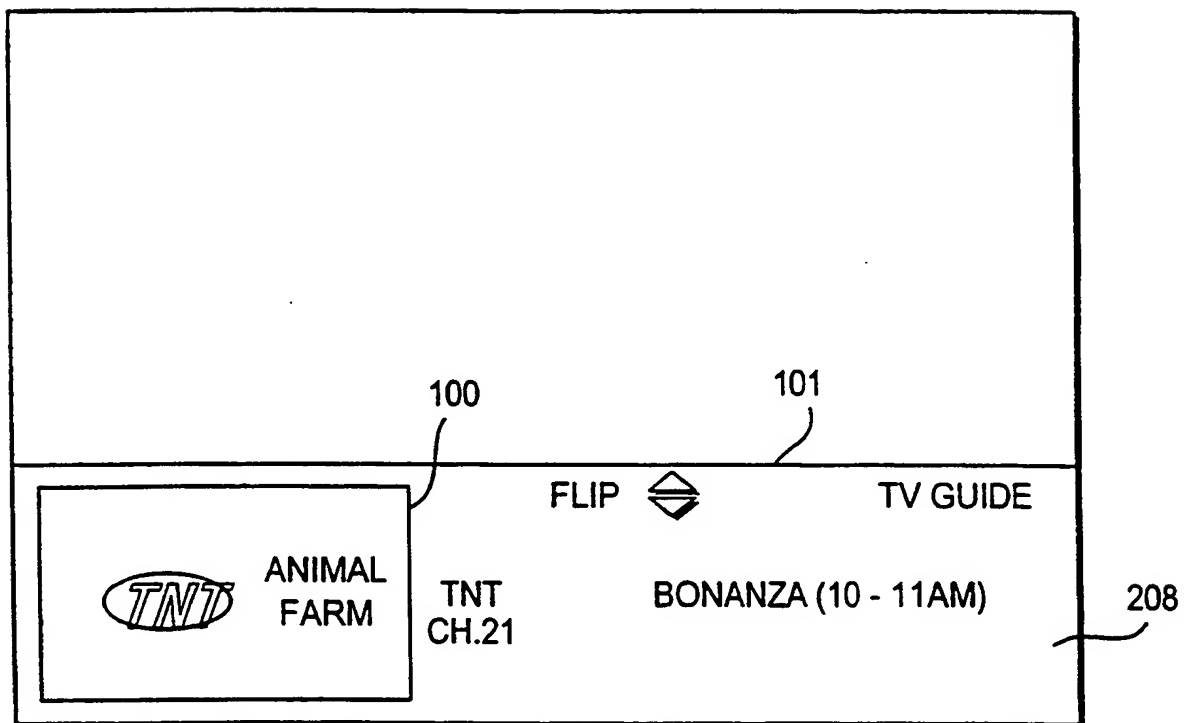
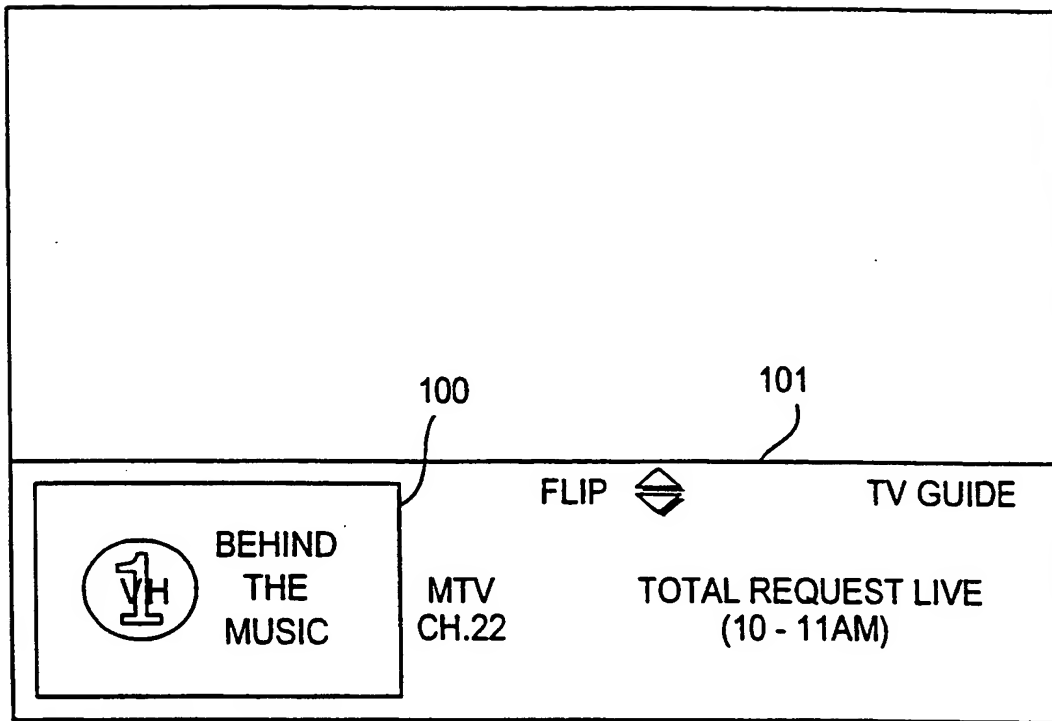


FIG. 11A

*FIG. 11B*

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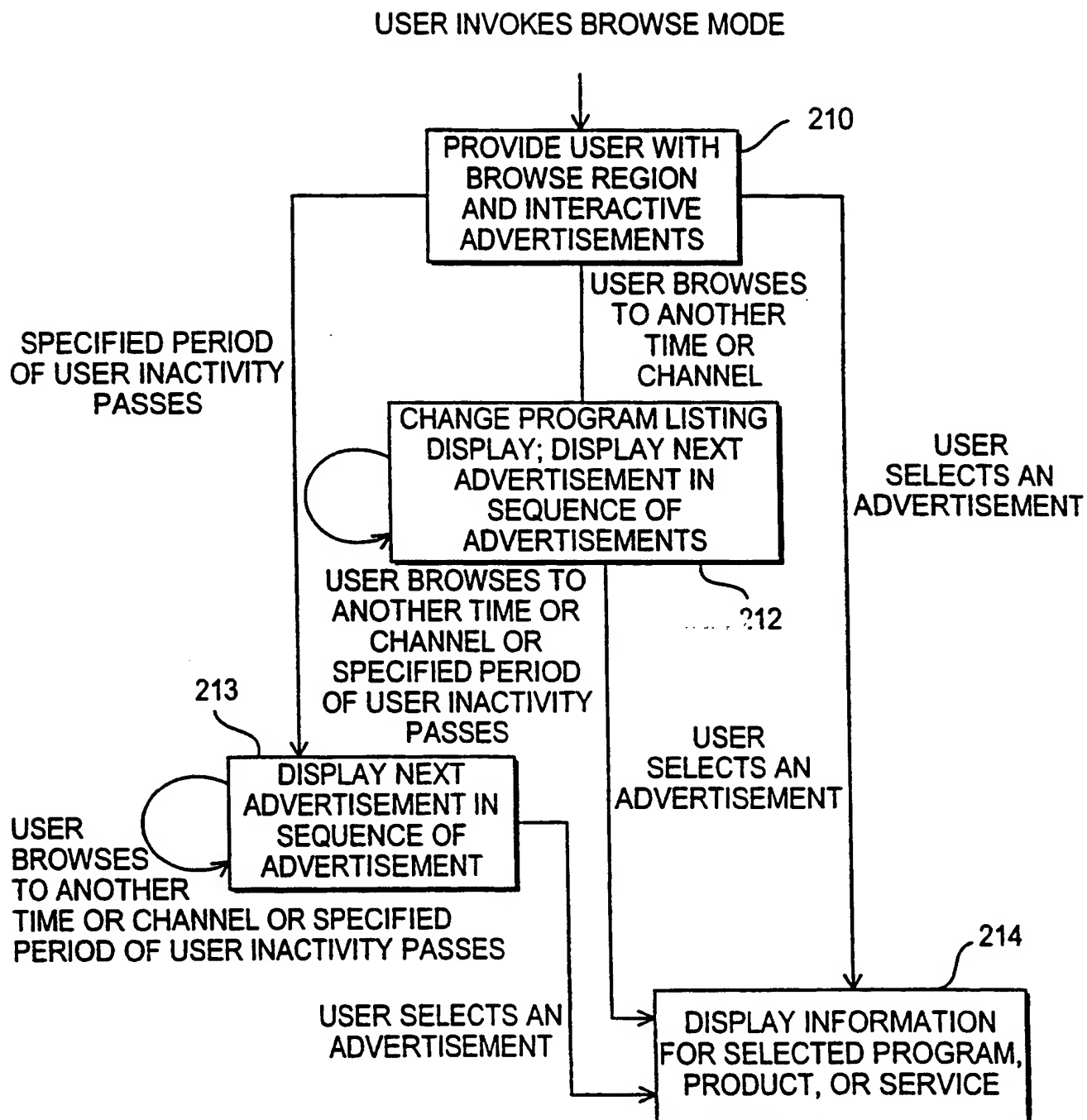


FIG. 12

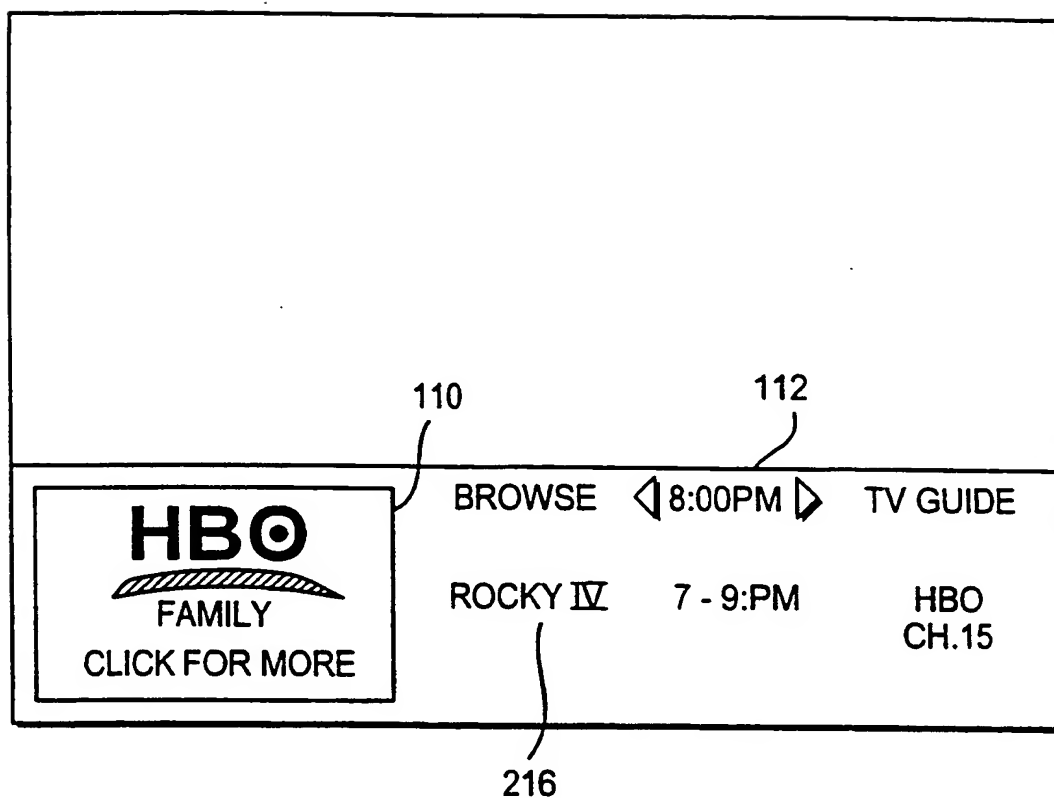


FIG. 13A

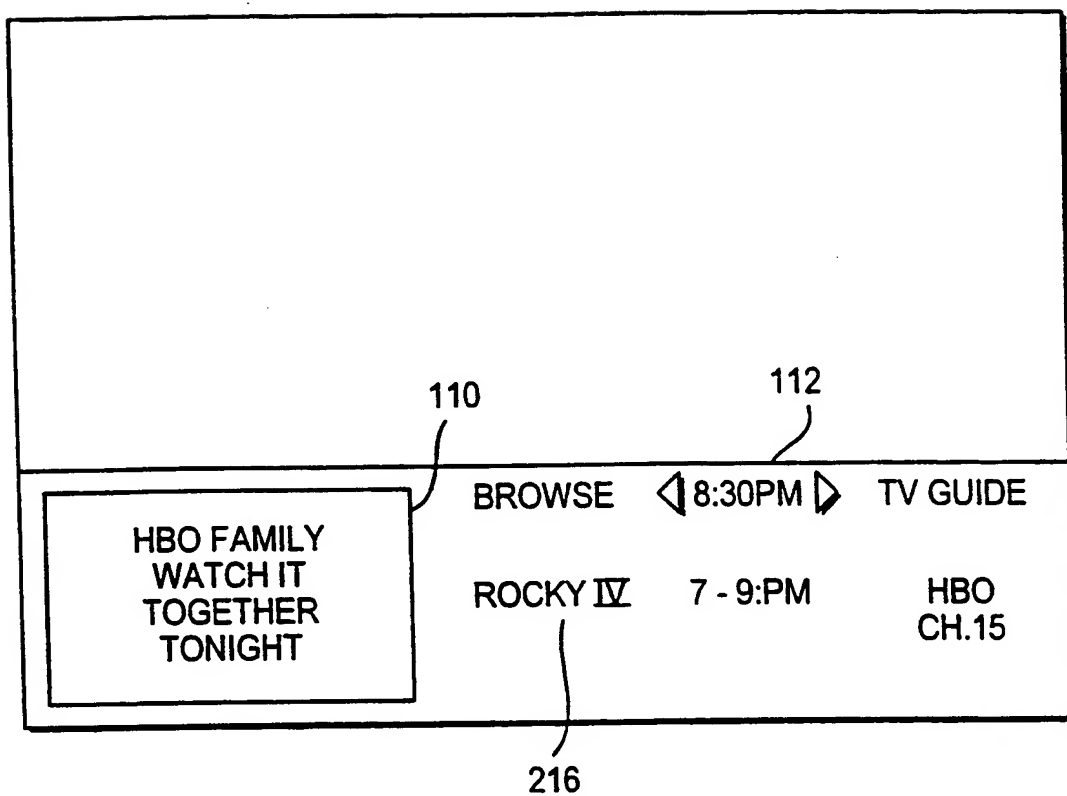


FIG. 13B

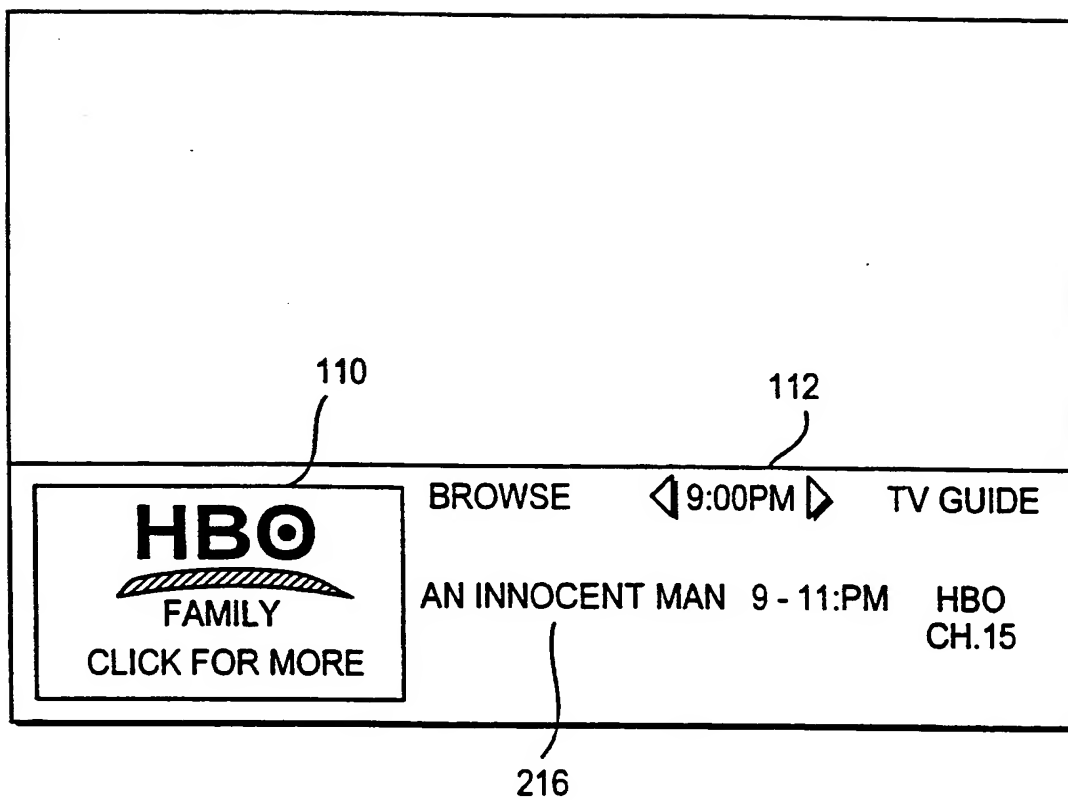


FIG. 13C



1  
2  
3  
4



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Tulsa, OK 74136 (US). **ELLIS, Michael, D.**: 1300 Kingwood Place, Boulder, CO 80304 (US).

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(74) Agents: **PIERRI, Margaret, A.** et al.: Fish & Neave, 1251 Avenue of the Americas, New York, NY 10020 (US).

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[US/US]; 7140 South Lewis Avenue, Tulsa, OK 74136 (US).

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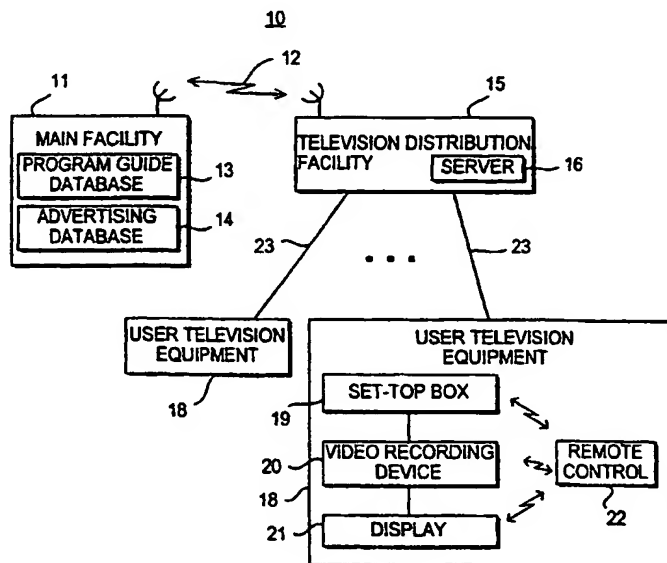
(72) Inventors: **MARTENS, Nick, L.**: 7220 S. Cherry Drive, Littleton, CO 80122 (US). **THOMAS, William, L.**: 11611 South 70th East Avenue, Bixby, OK 74008 (US). **KNEE, Robert, A.**: 747 Grissom Drive, Lansdale, PA 19446 (US). **MCKISSICK, Pamela, L.**: 6919 South Columbia Avenue,

Published:

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[Continued on next page]

(54) Title: **INTERACTIVE TELEVISION PROGRAM GUIDE WITH ADVERTISING ATTRACT MODE**



(57) Abstract: An interactive television program guide system having advertisement regions where a sequence of linked advertisements are displayed. The advertisements in each sequence of linked advertisements all advertise the same program, product, or service. A sequence of linked advertisements may consist of attraction mode advertisements and information mode advertisements that are concerned with enticing and informing, respectively. A displayed advertisement changes to the next advertisement in the sequence of linked advertisements based on the movement of a highlight region among the program listings by a user. A display advertisement may also change after a specified period of user inactivity.

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WO 01/19086 A3



(88) Date of publication of the international search report:  
13 September 2001

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

Inte. lional Application No  
PC 00/23623

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H04N5/445

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 929 850 A (HAASS JON C ET AL) 27 July 1999 (1999-07-27)	22, 26, 27
Y	column 4, line 60 -column 20, line 10	1, 5, 9, 18, 19, 31-33, 35, 39, 42, 52, 53, 57-59, 61
Y	WO 99 04561 A (SCHOAFF P CHRISTOPHER ;ALEXANDER RON (US); GUIDE INC E (US); HANCO) 28 January 1999 (1999-01-28)  page 3 -page 45	1, 5, 9, 18, 19, 31-33, 35, 39, 42, 52, 53, 57-59, 61

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

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Date of the actual completion of the international search

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Date of mailing of the international search report

22/03/2001

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Materne, A

# INTERNATIONAL SEARCH REPORT

Inte .ional Application No

PCT/ 0/23623

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 903 816 A (HAASS JON C ET AL) 11 May 1999 (1999-05-11) column 4, line 50 -column 20, line 5 ---	1-69
A	WO 99 11065 A (SCHOAFF PETER ;WARD THOMAS (US); HANCOCK KENNETH (US); HUGON JACQU) 4 March 1999 (1999-03-04) page 4 -page 15 ---	1-69
P,A	WO 99 45702 A (PREVUE INTERNATIONAL INC) 10 September 1999 (1999-09-10) page 7, line 28 -page 32 -----	1-69

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/00/23623

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5929850	A	27-07-1999	AU 3648197 A EP 0909512 A WO 9800975 A	21-01-1998 21-04-1999 08-01-1998
WO 9904561	A	28-01-1999	AU 8504898 A BR 9812104 A EP 1036466 A US 6122011 A	10-02-1999 18-07-2000 20-09-2000 19-09-2000
US 5903816	A	11-05-1999	AU 3648797 A EP 0909513 A JP 2000513891 T WO 9800976 A	21-01-1998 21-04-1999 17-10-2000 08-01-1998
WO 9911065	A	04-03-1999	AU 9211598 A CN 1274505 T EP 1013087 A	16-03-1999 22-11-2000 28-06-2000
WO 9945702	A	10-09-1999	AU 2879099 A AU 3310499 A BR 9909238 A BR 9909241 A EP 1058999 A EP 1060617 A WO 9945700 A	20-09-1999 20-09-1999 14-11-2000 14-11-2000 13-12-2000 20-12-2000 10-09-1999

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